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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,086	07/14/2000	Masahiro Tsujishita	649-753P	5579
2292 7590 07/09/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER LAO, LUN S	
			ART UNIT 2615	PAPER NUMBER
			NOTIFICATION DATE 07/09/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

09/617,086

Applicant(s)

TSUJISHITA ET AL.

Examiner

Lun-See Lao

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7 and 12-21 is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. This is in response to the amendment filed on 05-04-2007. Claim 8 has been amended and claim 6 has been cancelled. Claims 1-5 and 7-21 are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05-04-2007 has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 8 and 10-11 rejected under 35 U.S.C. 102(b) as being anticipated by Sakai (US PAT. 4,727,580).

Consider claim 8, Sakai teaches that a noise removal apparatus comprising:

a first demodulator (see fig.1 (26)) configured to produce a demodulation signal, the demodulation signal having information corresponding to audio signals of a plurality of channels, each of the audio signals corresponding to a respective one of the plurality of channels (see col. 3line 35-col. 4 line 50);

an audio signal demodulator (18) configured to receive and demodulate the demodulation signal produced by the first demodulator (26) in order to obtain the audio signals corresponding to each of the plurality of channels (R, L) from the demodulation signal, the audio signal demodulator further being configured to output the audio signals (see fig.6 and col. 6 line 10-68);

a noise detector (17) configured to receive the demodulation signal communicated between the first demodulator (26) and the audio signal demodulator (18), the noise detector (17) further being configured to detect noise in the received demodulation signal (see col. 2line 10-68); and

a corrector (19) independently configured to correct the detected noise in each audio signal, which is outputted from said audio signal demodulator, according to the output of said noise detector (see fig.4 and col. 4 line 50-col. 5 line 60).

Consider claims 10-11 Tsuji teaches that the noise removal apparatus of the output of said noise detector (see fig.1 (17)), a generation condition of the noise is detected, and corresponding to the detected result, the detection sensitivity of said noise detector (17) is controlled (see fig.4 and col. 4 line 50-col. 5 line 60); and an audio output apparatus including said noise removal apparatus (see fig.4 and col. 4 line 50-col. 5 line 60).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US PAT. 4,727,580) in view of Tsuji (JP 11-186924).

Consider claim 9 Sakai fails to teach that the noise removal apparatus of noise detector conducts the noise detection such that, for each predetermined period, which alternates among a plurality of channels, a portion of the period respectively overlaps with each other.

However, Tsuji et al. teaches that the noise removal apparatus of said noise detector (see fig.10, 20) conducts the noise detection such that, for each predetermined period which alternates among a plurality of channels, a portion of the period respectively overlaps with each other (see detail disruption page 5 [0024]-[0030] and figs 8-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Sakai in to the teaching of Tsuji to provide an apparatus for the separation and demodulation of such signal would benefit from the ability to adjust to this temporal variation to reduce the noise.

Allowable Subject Matter

7. Claims 1-5, 7, and 12-21 allowed.

Response to Arguments

8. Applicant's arguments with respect to claims 1-5 and 6-21 have been considered but are moot in view of the new ground(s) of rejection and see the final rejection above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:
(571) 273-8300

Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao, Lun-See
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 06-15-2007



VIVIAN CHIN
SUPERVISOR BY PATENT EXAMINER
TECHNOLOGY CENTER 2600